

Title (en)
HINGE WITH DAMPED CLOSING

Title (de)
SCHARNIER MIT GEDÄMPFTER SCHLIESSUNG

Title (fr)
CHARNIÈRE À FERMETURE AMORTIE

Publication
EP 3741943 A1 20201125 (EN)

Application
EP 20175207 A 20200518

Priority
IT 201900007146 A 20190523

Abstract (en)
A hinge (1) with damped closing, comprising a first four-bar linkage (2), which comprises a coupling element (3) which can be associated with a fixed element (100), a first portion (4a) of a first lever (4) and a third lever (5) which are associated in an articulated manner with the coupling element (3) and a first portion (6a) of a second lever (6) that is interposed between the preceding ones and is articulated thereto. The hinge (1) further comprises a second four-bar linkage (11), which comprises a fixing element (12) which can be associated with an element (200) which can move with respect to the fixed element (100), a second portion (6b) of the second lever (6) and a fourth lever (13) which are associated in an articulated manner with the fixing element (12) and a second portion (4b) of the first lever (4) that is interposed between the second lever and the fourth lever and is articulated thereto. The hinge (1) is adapted to assume alternately an open configuration and a closed configuration, in which the coupling element (3) and the fixing element (12) have different relative positions, the levers (4, 5, 6, 13) rotating about respective articulation pivots (7, 8, 9, 10, 14, 15, 16) which are substantially horizontal in use during the movement between the open and closed configurations. The hinge (1) is further provided with at least one damping element (17) which acts for at least one portion of the transition from the open configuration to the closed configuration and is provided with a first end (17a) and with a second end (17b) which can move alternately toward and away from each other between an extended configuration and a retracted configuration. The at least one damping element (17) has the first end (17a) associated in an articulated manner with at least one lever (4, 5, 6) of the first four-bar linkage (2) and the second end (17b) associated in an articulated manner with at least one lever (4, 6, 13) of the second four-bar linkage (11).

IPC 8 full level
E05D 3/16 (2006.01); **E05F 5/02** (2006.01)

CPC (source: EP US)
E05D 3/16 (2013.01 - EP US); **E05F 5/02** (2013.01 - EP); **E05D 2003/163** (2013.01 - EP); **E05Y 2201/21** (2013.01 - EP); **E05Y 2201/264** (2013.01 - EP); **E05Y 2900/20** (2013.01 - EP US)

Citation (applicant)
• EP 3309335 A1 20180418 - SYSTEM HOLZ S R L [IT]
• EP 3115531 A1 20170111 - SYSTEM HOLZ S R L [IT]
• EP 3312372 A1 20180425 - D G N S R L [IT]
• EP 2909406 A1 20150826 - D G N S R L [IT]
• EP 2947246 A1 20151125 - D G N S R L [IT]
• IT 201900007146 A 20190523

Citation (search report)
• [XYI] WO 2006053364 A1 20060526 - BLUM GMBH JULIUS [AT], et al
• [YDA] EP 3312372 A1 20180425 - D G N S R L [IT]
• [AD] EP 3115531 A1 20170111 - SYSTEM HOLZ S R L [IT]

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

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EP 3741943 A1 20201125; AU 2020203303 A1 20201210; US 11377889 B2 20220705; US 2020370349 A1 20201126

DOCDB simple family (application)
EP 20175207 A 20200518; AU 2020203303 A 20200521; US 202016877883 A 20200519